

**From:** Robert Pyke [<mailto:bobpyke@attglobal.net>]  
**Sent:** Sunday, April 17, 2011 4:54 PM  
**To:** Isenberg, Phil@DeltaCouncil; Grindstaff, Joe@DeltaCouncil  
**Subject:** presentation on possible solutions?

Phil, Joe,

Tom Zuckerman has reported to me that Joe has expressed interest in his ten "Big Affordable Ideas" which include the notion of moving the export intakes to the Western Delta rather than the Northern Delta, as discussed in my Contra Costa Times Op-Ed on Christmas Day and in my written comments on the first staff draft of the Delta Plan. I would be happy to make a brief 10-15 minutes presentation at the next Council meeting on this subject along the lines shown in the attachment. The presentation also covers Tom's Big idea No. 9. It is in fact a fragment of a longer presentation that I made to Restore the Delta in Stockton in March and that I am repeating in Rio Vista on May 4. I believe that Joe correctly recognizes that this is an idea that is out there that must be considered in your development of the Delta Plan.

Regards,

Bob

---

Robert Pyke, Consulting Engineer  
1076 Carol Lane, No. 136  
Lafayette CA 94549  
925 323 7338

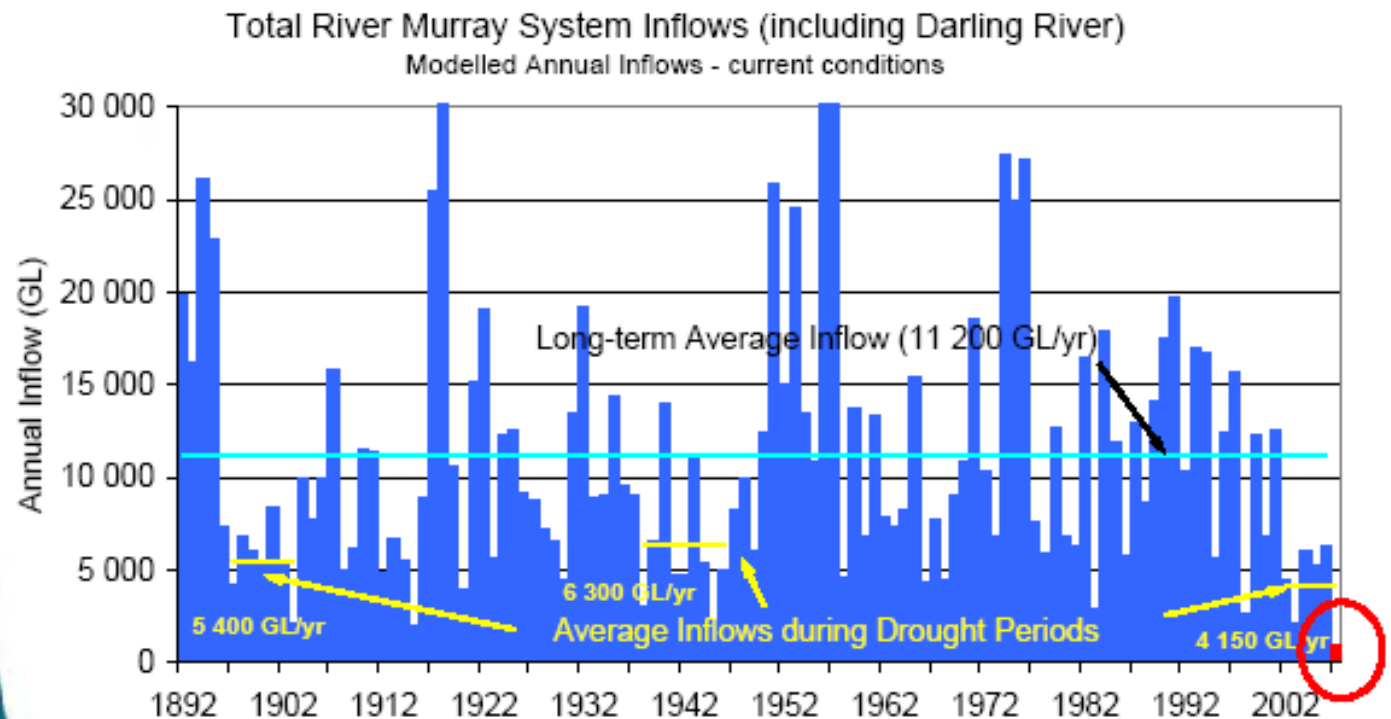
A proposed solution to basic conveyance  
and ecosystem restoration problems.

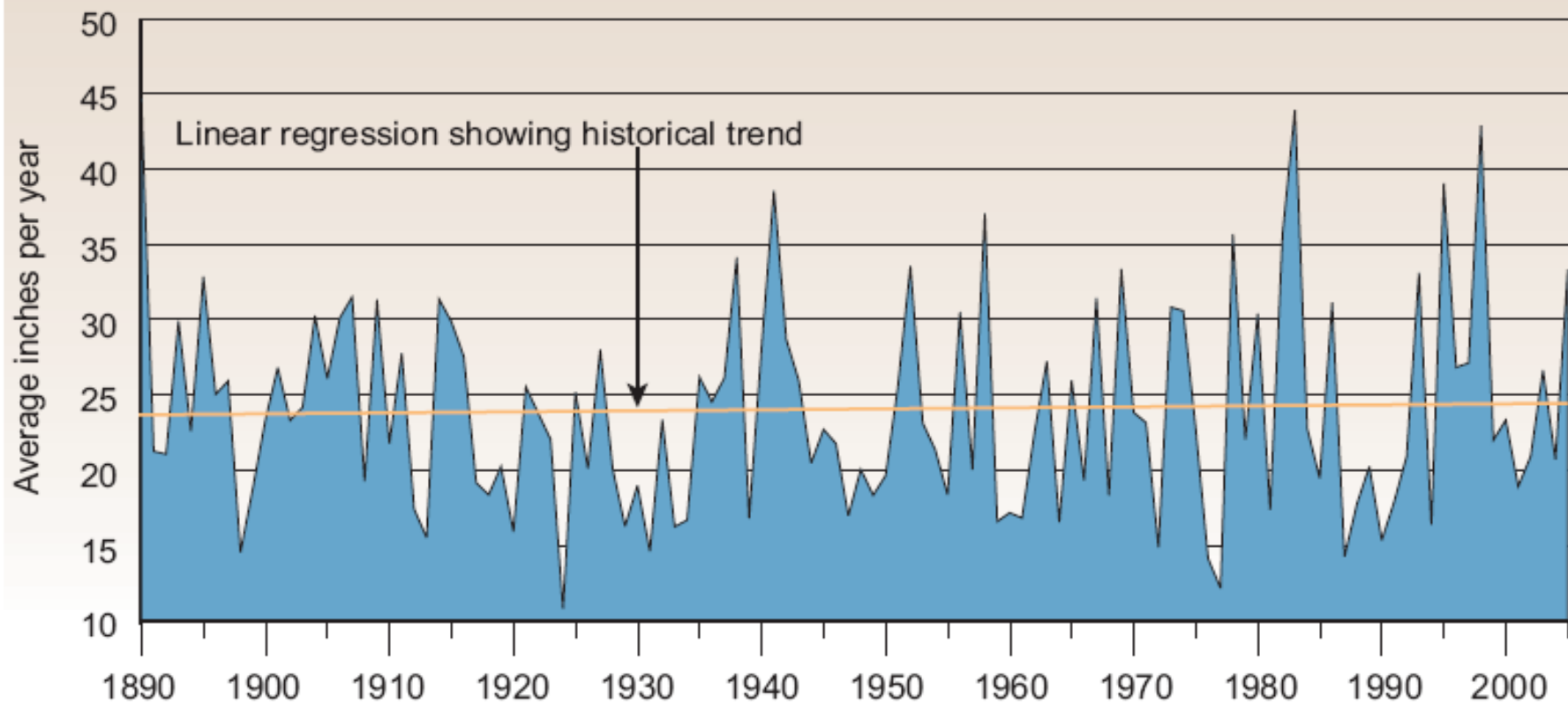
By Robert Pyke Ph.D., G.E.

Robert Pyke, Consulting Engineer

Lafayette, CA

# River Murray System Inflows (including Darling) Annual Totals





116 year average: 23.88 inches  
Driest 30 years (1908-1937): 21.28 inches  
Wettest 30 years (1977-2006): 24.88 inches

Yearly precipitation calculated from average of 95 stations spread across California. Data collected by Jim Goodridge, state climatologist formerly with DWR.

Source: California Department of Water Resources

Million Acre Feet

- Total Delta outflow
- Combined Central Valley Project and State Water Project diversions from the Delta (not including Contra Costa Water District diversions)
- Surface water diversion for In-Delta use
- Delta Watershed consumptive use of applied water and diversions for Friant-Kern Canal, EBMUD's Mokelumne Aqueduct, and SFPUC's Hetch-Hetchy Aqueduct

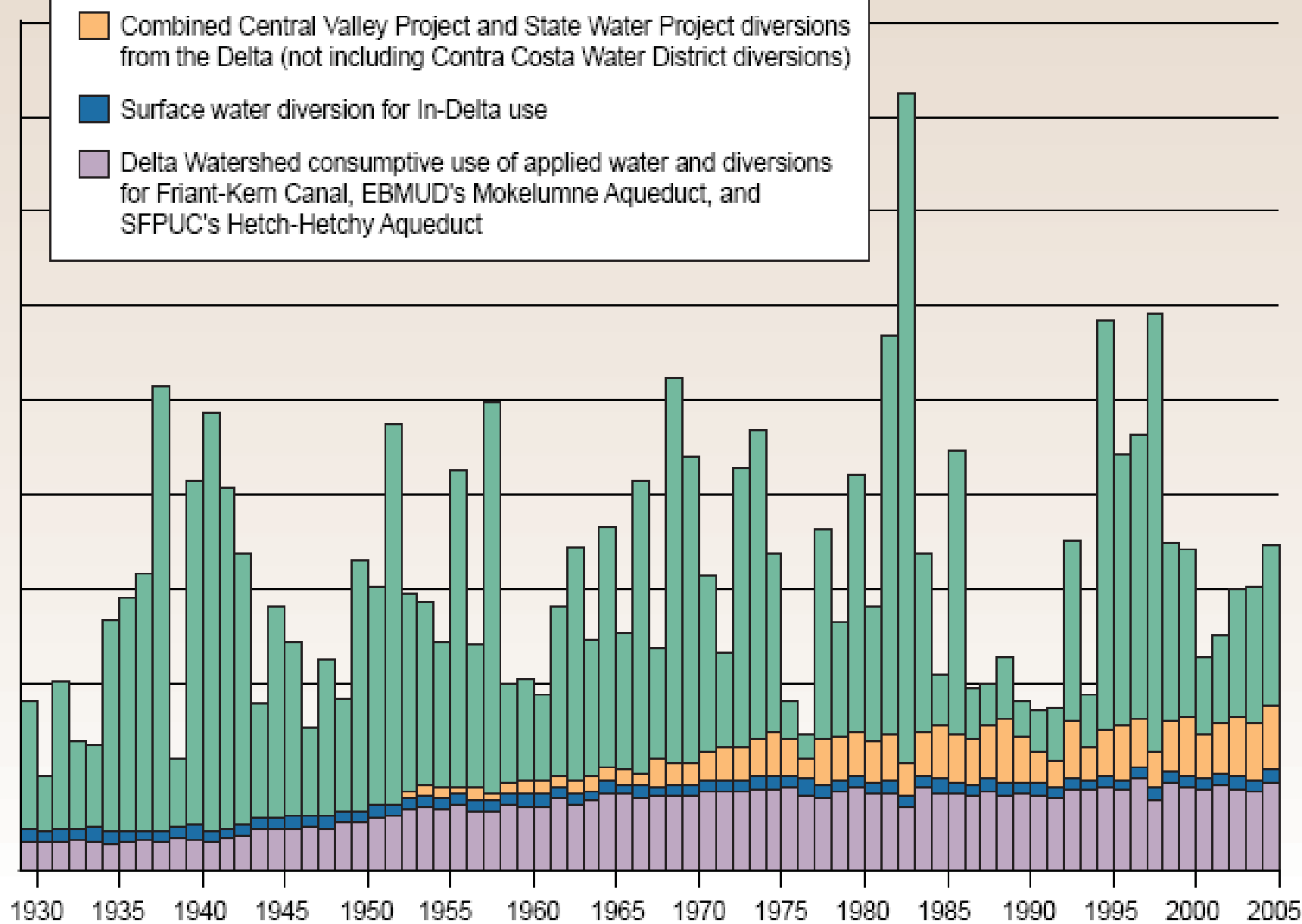


Figure B. Adult San Joaquin Salmon Returns 1960-2009

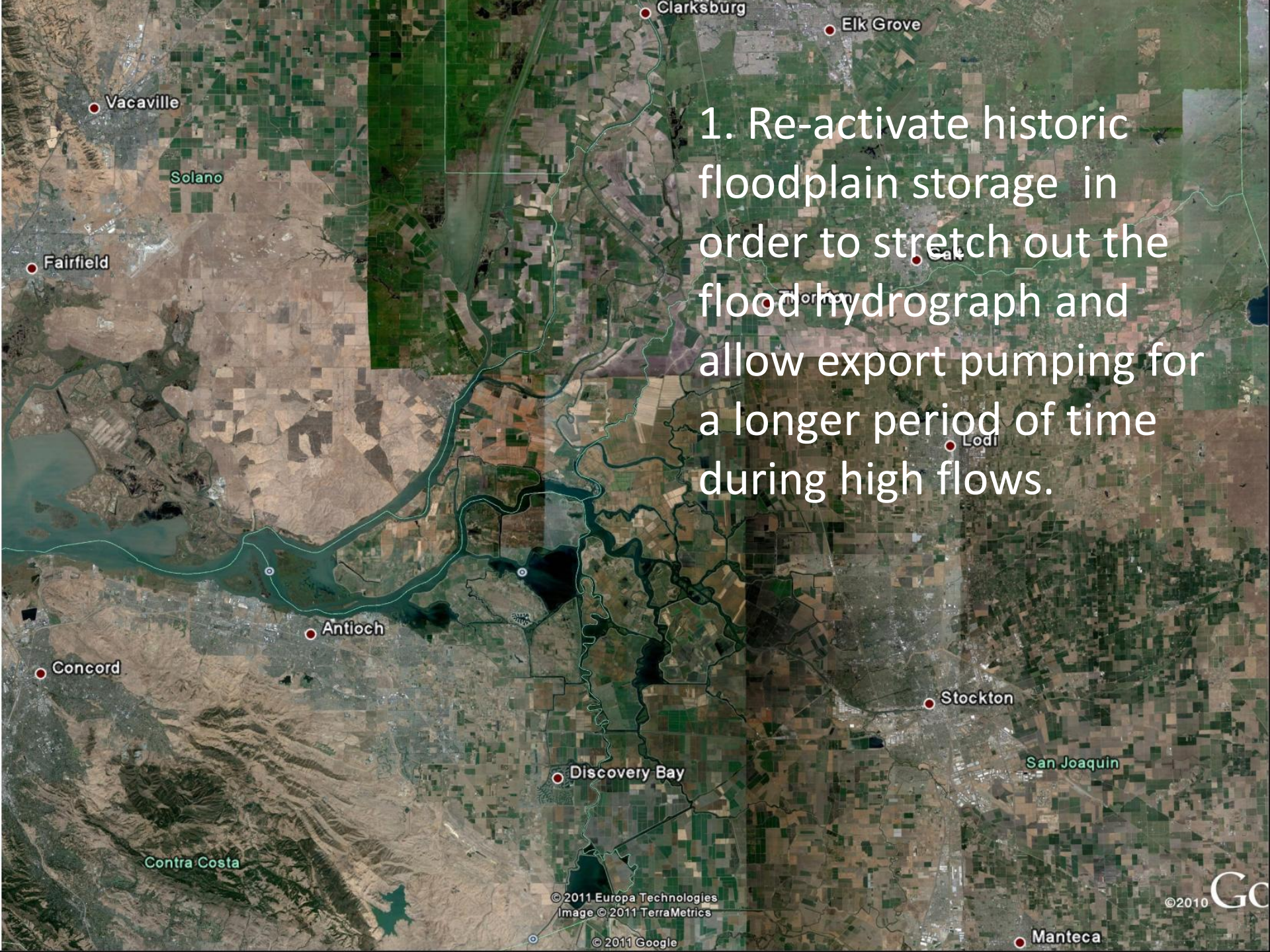
## Adult San Joaquin Salmon Returns



# Two basic principles:

- Extract more water during high flows and less or no water during low flows
- Allow natural flows to pass through the Delta before any surplus flows are extracted



A satellite map of the Central Valley of California, showing a network of rivers and floodplains. The map is overlaid with a grid of colored rectangles (green, brown, purple, grey) representing different land use or flood risk zones. Several cities are marked with red dots and labeled: Vacaville, Fairfield, Concord, Antioch, Discovery Bay, Clarksburg, Elk Grove, Lodi, Stockton, Manteca, and Manteca. County names like Solano, Contra Costa, and San Joaquin are also visible. A large text box in the upper right corner contains the text: "1. Re-activate historic floodplain storage in order to stretch out the flood hydrograph and allow export pumping for a longer period of time during high flows."

1. Re-activate historic floodplain storage in order to stretch out the flood hydrograph and allow export pumping for a longer period of time during high flows.

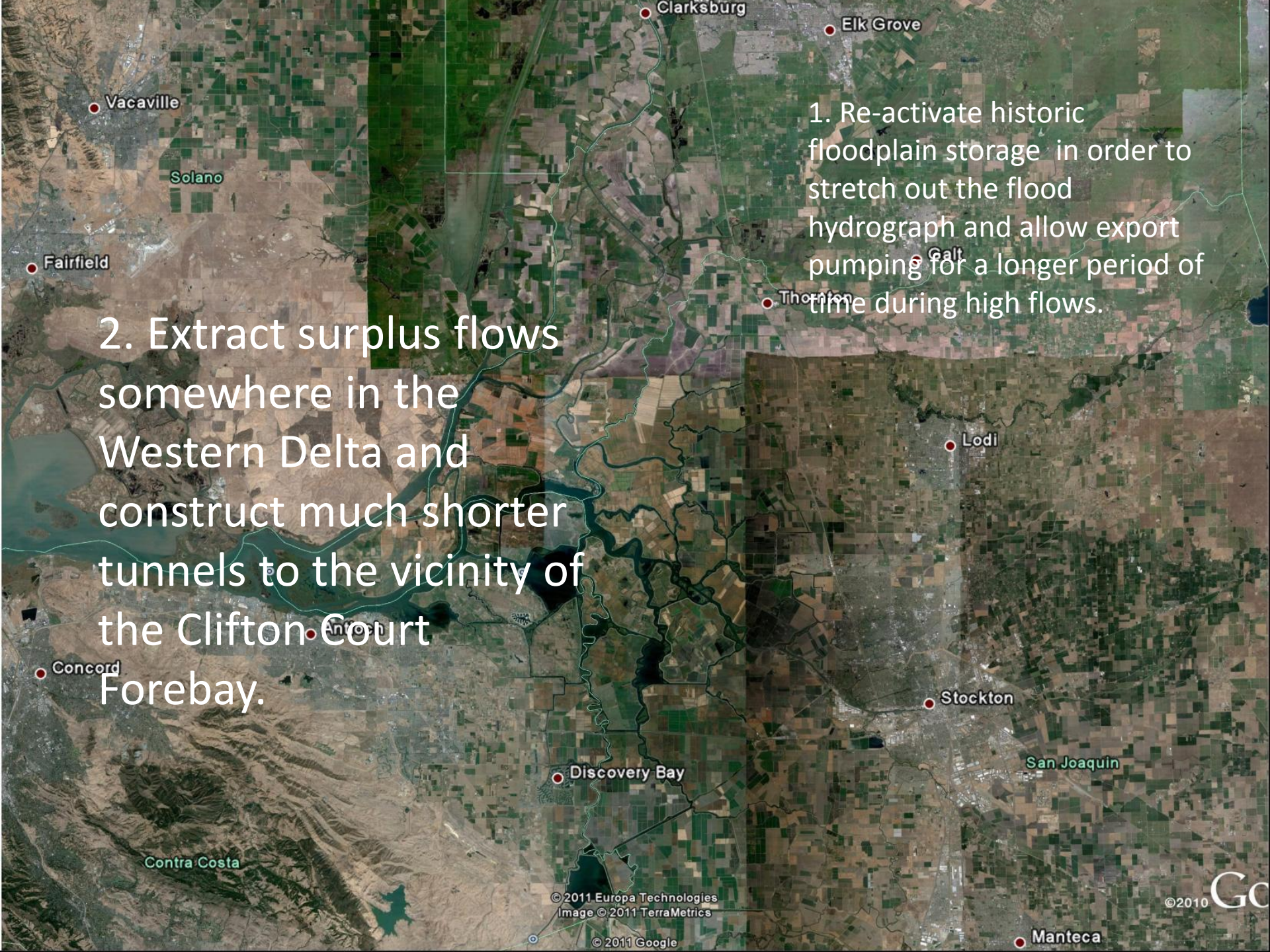




1. Re-activate historic floodplain storage in order to stretch out the flood hydrograph and allow export pumping for a longer period of time during high flows.

Has additional ecosystem restoration and flood mangement benefits!





1. Re-activate historic floodplain storage in order to stretch out the flood hydrograph and allow export pumping for a longer period of time during high flows.

2. Extract surplus flows somewhere in the Western Delta and construct much shorter tunnels to the vicinity of the Clifton Court Forebay.



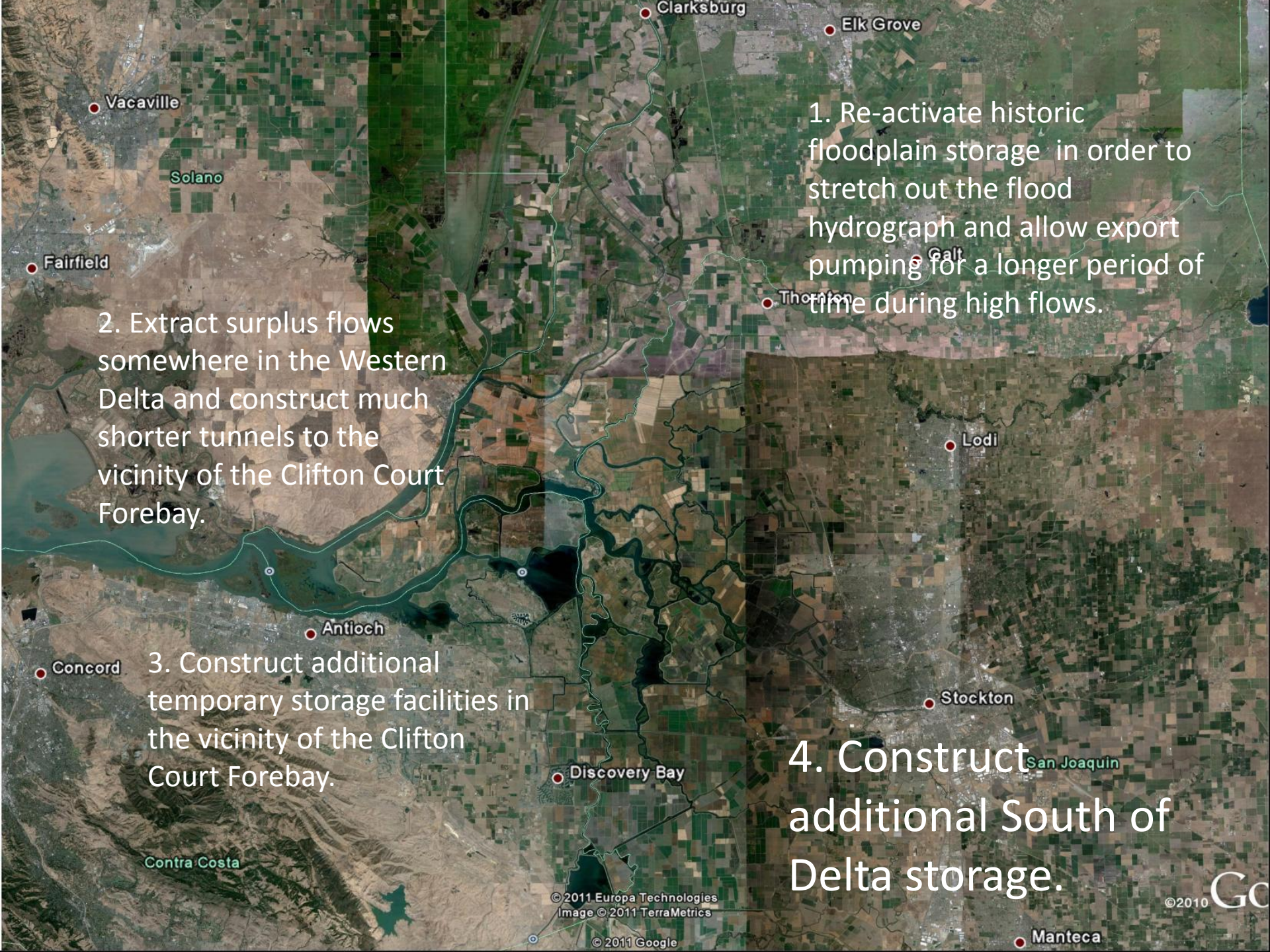


1. Re-activate historic floodplain storage in order to stretch out the flood hydrograph and allow export pumping for a longer period of time during high flows.

2. Extract surplus flows somewhere in the Western Delta and construct much shorter tunnels to the vicinity of the Clifton Court Forebay.

3. Construct additional temporary storage facilities in the vicinity of the Clifton Court Forebay.





1. Re-activate historic floodplain storage in order to stretch out the flood hydrograph and allow export pumping for a longer period of time during high flows.

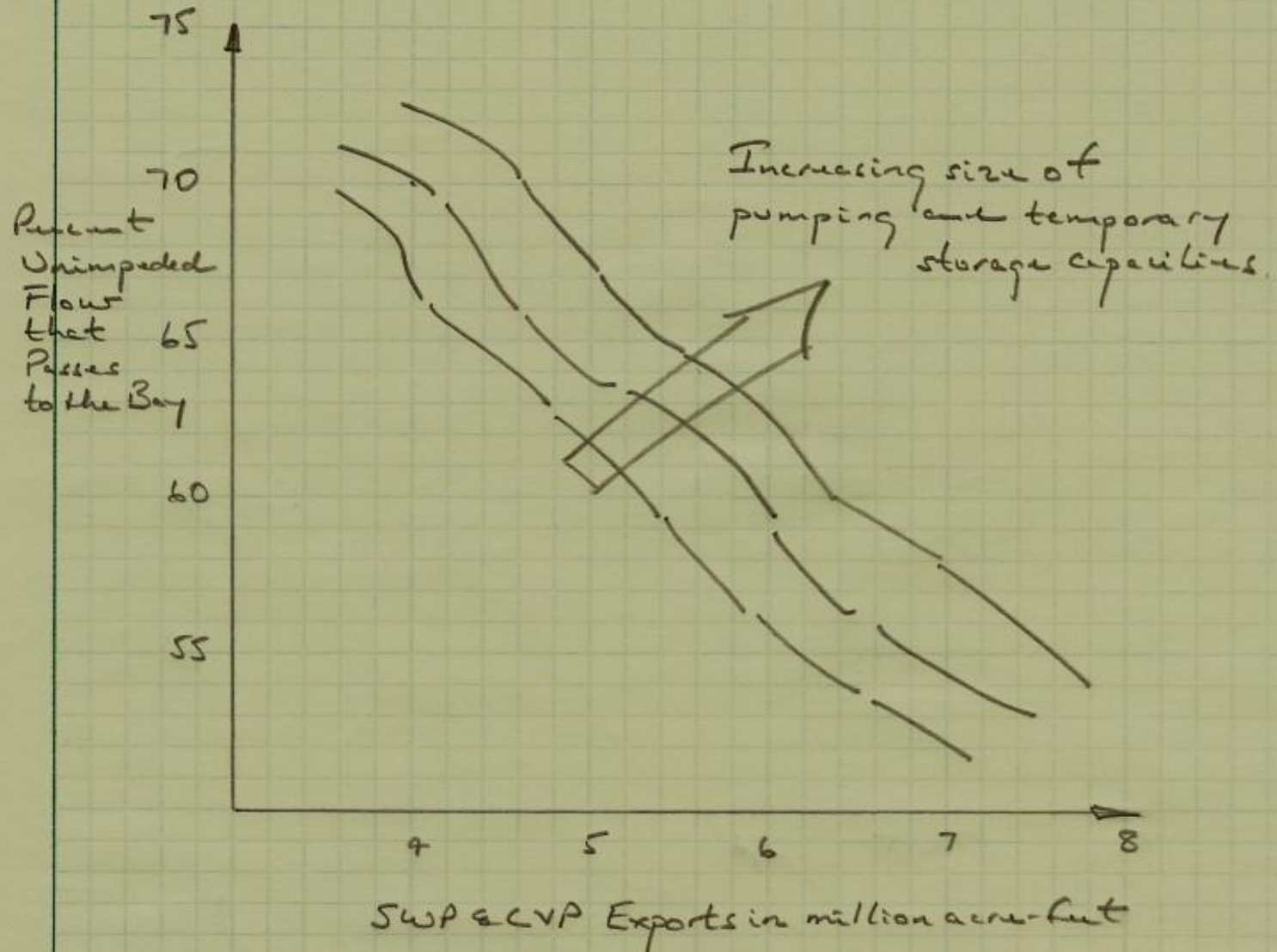
2. Extract surplus flows somewhere in the Western Delta and construct much shorter tunnels to the vicinity of the Clifton Court Forebay.

3. Construct additional temporary storage facilities in the vicinity of the Clifton Court Forebay.

4. Construct additional South of Delta storage.



Rmp 10/30/2010





Thank you!

I'd be happy to address easy  
questions.